# Basics

## **Static vs Dynamic Content:**

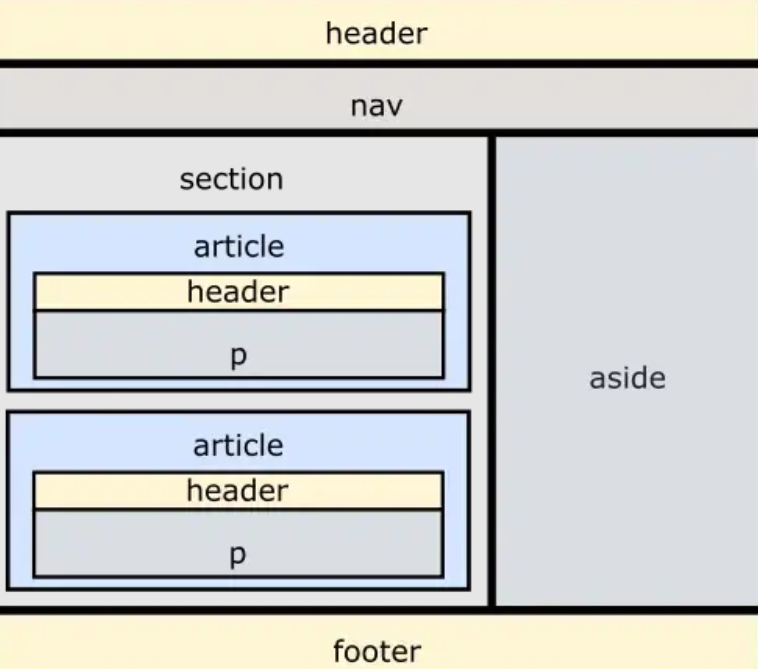
* Static content
  + The content that we will get directly from web server and it can be directly displayed on our web browser
  + Eg. videos that we request and images, and normal text doc
* Dynamic content
  + The content that are specific to us and change from user to user
  + Eg. Logged into coursera web browser request for our content to web server and web server request contents specific to us from application server and application server applies all the necessary logic to fetch the req content for us
* Caching:
  + As requesting dynamic content is time consuming so at first time web server saves the copy of dynamic content in cache so the next time when user asks for the content again it fetches it from cache instead of asking application server to perform all the operations to generate the dynamic content

# **HTML**

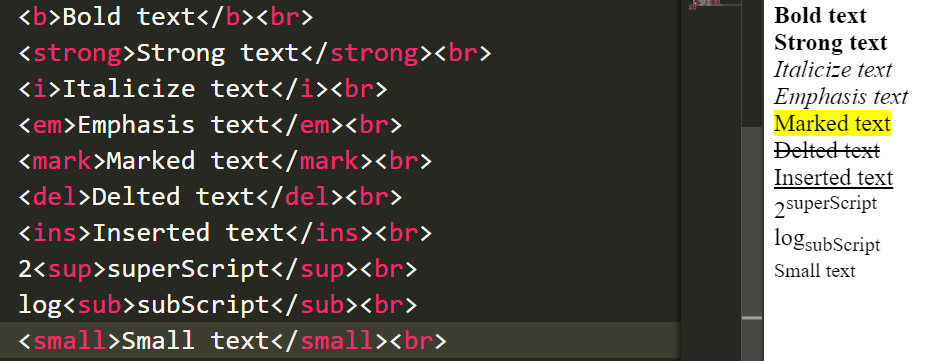
## **Structure:**

* The structure of html contains !Doctype tag for defining that are using HTML 5
* It contains one head tag for giving info to browser so it won’t be visible for us
* It also contains one body tag which contains all the content that will be displayed in a webpage
  + Head:
    - Title =>Will be our tab name
    - Meta=> Data will be used by the browser - It describes the property of an html doc
      * <meta name=”keywords” value=”html tutorial pavanVideos”>
      * <meta http-equiv=”refresh” content=”30”>
      * <meta charset=”UTF-8”>
    - Link => Used for linking external resources
    - Style => Used for styling our html page
    - Script => Is used to embed a script

## **Semantic Elements**

* Placing the tags separately and meaningfully using semantics like
  + Header
  + Nav
  + Footer
  + Main
  + Section - portion inside main content
  + Article - article contains sections
  + Aside - sidebar for ads or anything
* This helps for screen reader and web search and understandable code
* 

## **Formatting Elements**

* The elements that are used to format text
  + B - bold
  + Strong - bold
  + I - Italics
  + Em - emphasis
  + Del - deleted text
  + Ins - inserted
  + Small - small text
  + Mark - highlighted text
  + Sub - subscript
  + Sup - superscript
  + 

## **Quotation & Citation**

* Quotation and citation elements are used to give reference that that quote or content is taken from another website
* Below blockquote should be used when we add reference text form a site
  + <blockquote cite=”site name or reference”> </blockQuote>
* Cite tag is used to mention that the above quote is taken from that cite
  + <cite> ………. </cite>
  + <blockquote cite="lorem">
  + .....
  + </blockquote>
  + <cite>Lorem</cite>

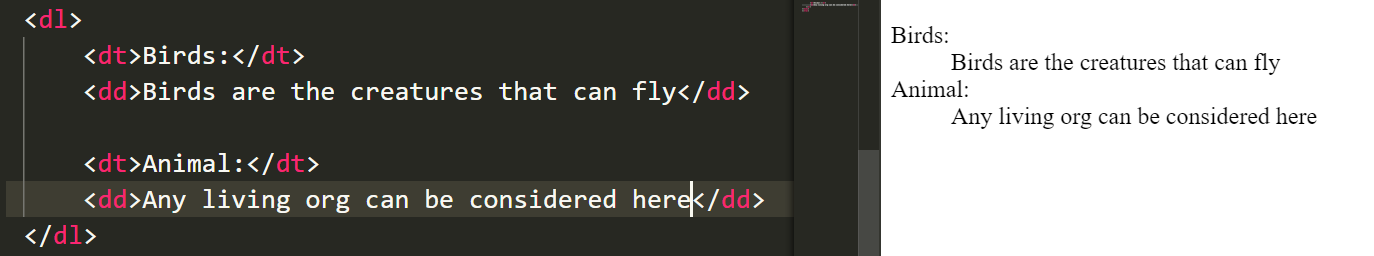
## **Entities:**

* Entities are those characters which are not present in keyboard
* We need to use entity name or entity number in order to add those in our page
  + @amp; or &

## **Global Attribute;**

* Global attributes can be used on elements
* **Id**- attribute is used to uniquely identify element
* **Title** - is used to give a title to that element when mouse is hovered
* **Contenteditable:true** will make the content on the webpage editable and we can use JS to make it saved
* **SpellCheck=true** will check the spelling
* **Dir=ltr/rtl** is used to define the direction of the text inside that tag

## **Lists**

* UL it’s type attribute can be used to set the bullet points
  + **<ul type = “disc”>** 
    - **<li> ….. </li>**
  + **</ul>**
  + Type: disc, square, circle
* LI also works similar but is ordered
  + Type: 1, A, a, I(roman uppercase), i(roman lowercase)
* DL description list
  + Heading and list model
  + 

## **Forms**

* Forms tag is used to create forms. It is having 3 attributes
  + Name - Is used for name of the form
  + Action- Is used for sending the form to the provided link
  + Method - Will submit the form to the server with that method type
* Input tag is used to generate diff types of inputs by changing its type attribute and we can also use placeholder attribute

#### **Button:**

* + any button inside form will be a submit button. To remove this property change the type of button to button
  + Button can be of 3 types button, Submit, reset
    - <button tpe=”button”>normal button</button>
    - <input type=”button” value=”click me!!”>
    - We also do have input type of button where we need to change the name by changing its value attribute

#### **Radio button:**

* + as we can click on only one radio button at a time for that we need to give all the radio buttons same name and also we should give value attribute so that it will be passed in url while submitting
    - <input type=”radio” name =”same” value=”xlSize”>

#### **Select:**

* + Options are given to select an item from the options
    - <select name=”pets”>
    - <option value=””>option value</option>

#### **TextArea:**

* + text area to write a paragraph
    - <textarea rows = “20” cols=”20”></textarea>

#### **Label tag:**

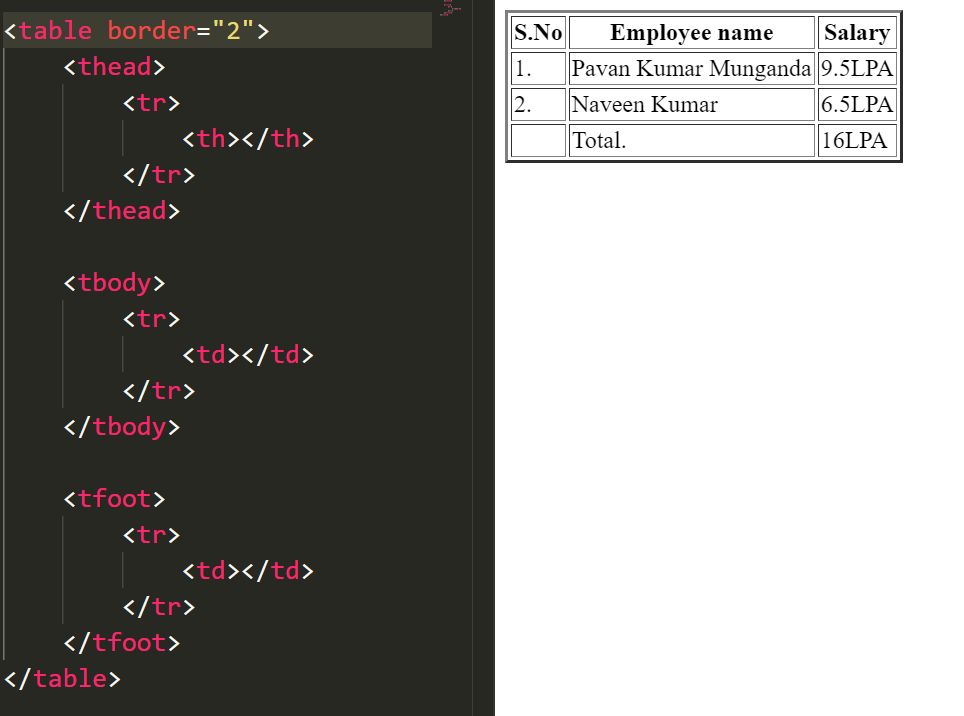
* + Is used to give name to our input tag and also labels are used to map to our input tag using for and Id attribute
    - <label for=”cheese”>Do you like cheese?</label>
    - <input type=”checkbox” id=”cheese”>
    - Eg. when we click on label it will click on checkbox because label tag is mapped to that check box

#### **Data list:**

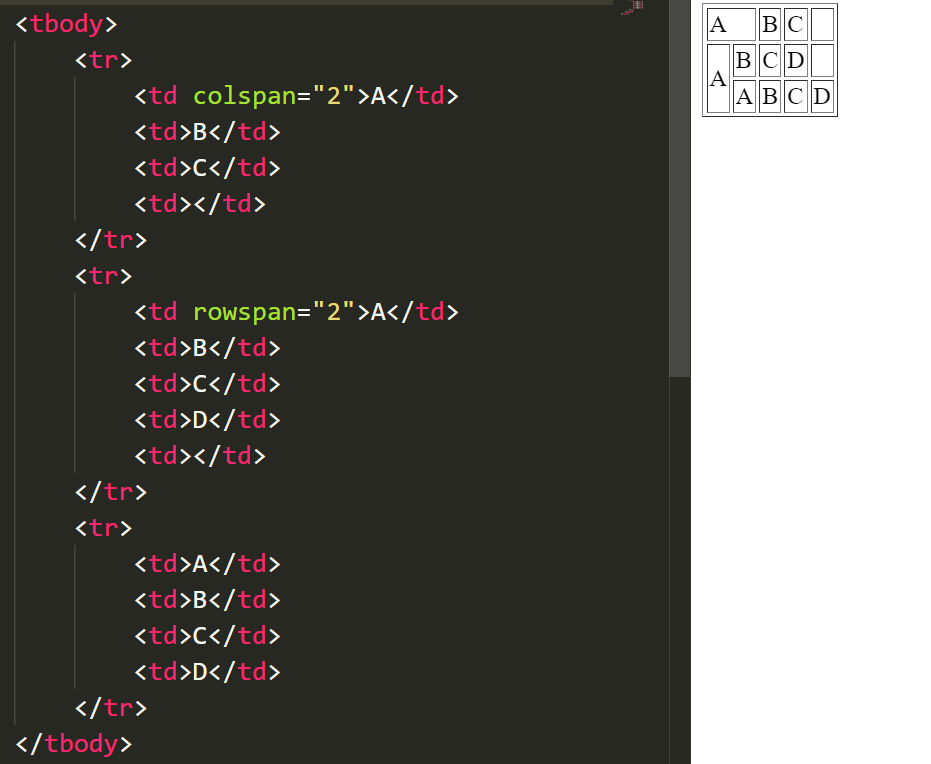
* + It is used for auto filling just like select option tag it does also have dropdown but we can type in the dropdown based on that it will get matching result
  + <label for="branches">Choose your branch</label>
  + <input list="branch" name="Branhes Data" id="branches">
  + <datalist id="branch">
  + <option value="Java"></option>
  + <option value="C#"></option>
  + <option value="Python"></option>
  + </datalist>
* **Required** and **minlength** and **maxlength** can be used on all above tags to make them mandatory and follow certain paths
* When we click on submit it tries to search based on the input tags names below I’ve added names for username and password field so it is trying to fetch data of them by doing an &
  + <label for="username">Enter your username: </label>
  + <input type="text" placeholder="username" name="username" id="username"> <br>
  + <http://127.0.0.1:5500/tacos?username=enteredtext&password=enteredtext>

## **Table:**

* Form have action=”webpage url/server url” target=”where the next page should open” method=”post/get/put”
* Formaction attribute is used to change the default action of form
* Formemthod will change the default method type
* FormTarget will change opening type
* Formnovalidate will not validate the form
* Table is used to structure content in a webpage. Border attribute of table tag is used for providing border to the table
* thead is used for creating heading for table and the data is given by th tag
* tbody is where all the data related to table is present
* tfoot is where all footer of table is present
* Caption tag can be given inside table tag to give caption or name to our table



### **ColSpan RowSpan:**

* + We need to give the number of cols or rows to merge
  + 

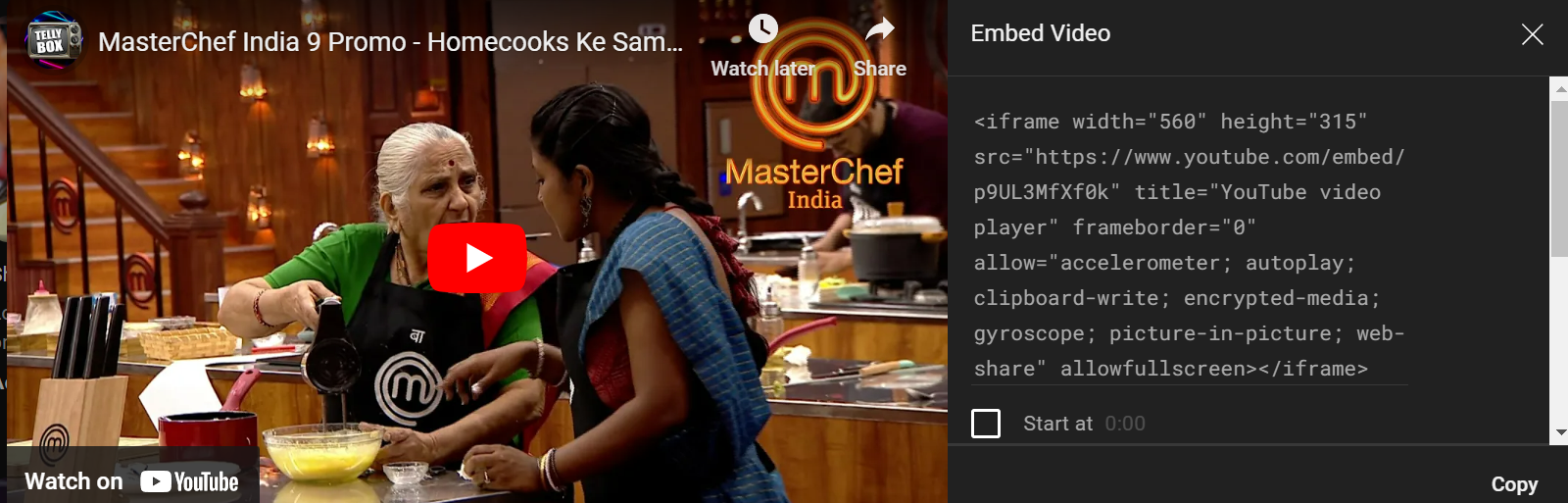
## **Anchor tag:**

* It is used for linking web pages to make them navigable
* 2 attributes href - for link target - is where it goes
  + \_blank, \_self, \_top, \_parent these are the values we can give to target attribute and new window, same window, parent window, top of parent windows are the works they do respectively
  + **Eg: <a href=”https//: ” target=”\_blank”> google</a>**
* <a href="https://www.mysite.com" target="\_blank" rel="noopener noreferrer">Mysite</a>
  + - The "noopener" attribute instructs the browser not to grant the browsing context access to the document that opened its new link.
    - The "noreferrer" attribute prevents the browser from sending page address, or any other value, as the referrer when navigating to another page.
* There are different types of hyperlinks which can be used
* **Text** - where we click on a text and get navigated to a different page
* **Image** - Click on an image will navigate to a new page
* **Bookmark** - Will navigate to the explained version of that text on same page
* **Email** - Will navigate to default email app to send email
  + **<a href=”URL” target=”where it should go”>link name</a>**
* Can navigate to top of page by giving an id at top and in href we give that if as <a href=”#top”>
  + **<a href=”mailto:** [**jdfjld@gmail.com**](mailto:jdfjld@gmail.com)**”> ……… </a>**
  + **<a href = “tel: 4654654”> ….. </a>**

## **Embedded elements:**

* These are elements that refers to another webpage data in our page or other resources data in our page like images, video, audio
* Every one of these elements makes a new request to server to get the data
  + Img
    - Image tag is having attributes like src, alt, width, height, border
    - **<img src="SourceLink" alt="text displayed when image not available">**
  + Audio
    - We can play pause loop and autoplay audio using this tag
    - Controls, src, loop, autoplay, muted are the attributes
    - Loop will play in loop after song ends
    - <audio …> msg is shown if browser doesn’t support audio </audio>
  + Video
    - Have same behaviour and attributes like audio and it also has option of poster which shows on screen till the video starts
    - <video src=”..” poster=”pic.jpeg”>...</video>
  + Source
    - This tag is used to give multiple resources to single file as if one type don’t work it will go with another
    - <audio controls loop autoplay>
      * <source src=”.png” type=””>
      * <source src=”.jpeg” type=””>
    - </audio>

## **IFrame:**

* Iframes are other frames which are integrated to the website like integrating googleMaps, Youtube….
* We have the option of embed while sharing any video or map which gives us all data along with Iframe tag we can simply place it in our code
* 
* Attributes
  + Allow full screen
  + Src
  + Height and width
  + Sandbox - is used for blocking content from that external source we can use sandbox = “value value1” is when certain value of parameters are allowed rest all targets are not allowed
* <iframe src="https://www.youtube.com/watch?v=CKpBA82A7oM"
* sandbox="allow-modals allow-scripts"></iframe>
* Linking Iframe and link so that when we click on link the iframe gets activated and shows the content
* On load angular page is displayed
* As we click on link bootstrap page is loaded
  + <p>
  + Lorem ipsum dolor sit amet consectetur, adipisicing elit.
  + <a href="https://getbootstrap.com/" target="iframe\_a">Bootstrap</a>.
  + </p>
  + <iframe height="300" width="350" src="https://angular.io/" name="iframe\_a"></iframe>
  + 